

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 4/17/2009

Control	6184-18-001
Project	RMC - 618418001
Highway	US0081
County	WISE

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: RMC - 618418001

CONTROL: 6184-18-001

COUNTY: WISE

LETTING: 05/01/2009

REFERENCE NO: 0417

PROPOSAL ADDENDUMS

_ PROPOSAL COVER

_ BID INSERTS (SH. NO.:

X GENERAL NOTES (SH. NO.: CHANGE IN GENERAL NOTES: SHEET H

X SPEC LIST (SH. NO.: ADDED SPECIAL SPEC 4191

_ SPECIAL PROVISIONS:

ADDED:

DELETED:

X SPECIAL SPECIFICATIONS:

ADDED: 4191

DELETED:

X OTHER: CHANGE IN GENERAL NOTES

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

ADDED SPECIAL SPECIFICATION 4191

ADDED NOTE TO PAGE H IN THE GENERAL NOTES THAT STATE SPECIAL SPECIFICATION
4191 IS SUBSIDIARY TO THE PERTINENT BID ITEMS

Project Number: RMC 618418001

Sheet A

County: WISE

Control: 6184-18-001

Highway: US 81

**** Specification Data ****

Basis of Estimate

Item	Description	Rate	Unit
166	Fert (16-8-8)	600 lb/acre**	Ton
168	Vegetative Watering	169,400 gal/acre	MG
340	Hot Mix (All Types)	115 lb/SY/in	Ton

Special Notes:

Plans are required.

Bid proposals for this project will be delivered to the **District Maintenance Contracting Office** at following address:

**Administration Annex Building
2501 SW Loop 820
Fort Worth, Texas 76133**

Personnel will be experienced in items of work in contract. Safety vests and hard hats will be pre-approved and worn at all times when outside vehicles within the work area.

Contract Prosecution: Each contract awarded by the Department stands on its own and as such, is separate from other contracts. A Contractor awarded multiple contracts must be capable and sufficiently staffed to concurrently process and/or execute all contracts at the same time.

Coordinate all work through the Area Engineer shown below or his representative:

Bill Nelson
1710 W. US 380
Decatur, Texas 76234
(940) 626-3400

General: Site Management

Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized in writing by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

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Assume ownership of debris and dispose of at an approved location.

Calculating, Recording and Reporting Test Data - Use appropriate TxDOT Excel templates to calculate and record all test data. These forms are available on the TxDOT website at www.dot.state.tx.us/forms/construction.htm under the "SiteManager" heading. Submit test results within 24 hours of test completion by email or CD.

Single lane closures, except as otherwise shown in the plans, will be restricted to off-peak hours as defined in the following table:

Peak Hours		Off-Peak Hours	
6 to 9 AM Monday through Friday	3 to 6 PM Monday through Friday	9AM to 3PM and 6 PM to 6 AM Monday through Friday	All day Saturday and Sunday

Work that requires closure of multiple travel lanes in the same direction, except as otherwise shown in the plans, will be performed at night between the hours of 9:00 pm and 6:00 am.

Existing storm sewers and utilities are shown from the best available information. Verify the location of all underground facilities prior to starting work.

For dimensions of R.O.W. not shown on the plans, see R.O.W. map on file at the TxDOT District Office.

Provide all-weather surface for temporary ingress and egress to adjacent property, as directed. Materials, labor, equipment and incidentals necessary to provide temporary ingress and egress will not be paid for directly, but will be subsidiary to the various bid items.

In those instances where necessary, the governing slopes indicated herein may be varied from the limits shown, to the extent approved.

Locations and lengths of all private entrances are approximate only. The actual locations, lengths, lines, and grades are to be established in the field.

Take care that existing curb and curb and gutter is not discolored or damaged during construction operations. In the event of discoloration or damage, clean or repair as directed.

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Remove the grass from the crown of shoulders or pavement edges by blading or other approved methods. Payment for this work will not be made directly but shall be considered subsidiary to the various items of the contract.

Provide temporary drain openings at all low points or other drainage structures, as required, at the Contractor's expense.

Remove any obstructions to existing drainage due to the contractor's operations, as required, at the Contractor's expense.

Item 5. Control of the Work

When supplementary bridge plans, shop drawings, shop details, erection drawings, working drawings, forming plans or other drawings, are required, the drawings shall be prepared and submitted on sheets 8 1/2 by 11 inches, 17 by 22 inches, or full size drawings reduced to half scale if completely legible. If, in the opinion of the Engineer, the drawings are not completely legible, they shall be prepared and submitted on sheets 22 by 34 inches, with a one and one-half inch left margin, and a one-half inch top, right, and bottom margin.

All sheets submitted shall have a title in the lower right hand corner. The title shall include the sheet index data shown on the lower right corner of the project plans, name of the structure or element or stream, sheet numbering for the shop drawings, name of the fabricator and the name of the Contractor.

Item 7. Legal Relations and Responsibilities

Personal vehicles will not be parked within the right-of-way at any time, including any section closed to the traveling public.

Operations will be curtailed or halted during special events that may result in delays or congestion to the traveling public.

Item 8. Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.A.3 Seven-Day Workweek.

There will be thirty (30) working days allowed to complete work.

Work is allowed to be performed during the nighttime. Nighttime work is defined as work performed between the hours of 8:00 PM and 5:00 AM, Sunday through Saturday, unless otherwise directed. Time will be charged the day work begins.

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Failure to complete a project in the working days specified in the work order, time charges will continue for each working day until work is complete. The amount assessed for liquidated damages will be based on the value of the original contract, in accordance with Special Provision 000-1493, not the estimated amount on individual work orders.

Provide Multi-Directional Lighting Device for nighttime work with the following quality requirements:

- Provide a 2000 watt (minimum) SIROCCO lighting balloon, Airstar lighting or equivalent
- It is the intent of the MDLD lighting to supplement the Portable Road Light and Power Unit used to illuminate work areas during night work hours.
- Provide MDLD units which can self-inflate and are capable of illuminating approximately 15,000 sq. ft.
- Provide MDLD units of 1.1 meter horizontal diameter and capable of withstanding 60 mph winds when fully inflated and operating.
- Provide MDLD units with two (2) 1,000 watt halogen bulbs recommended by the manufacturer.

Item 9 Measurement and Payment

Material on Hand will not be paid in accordance with Special Provision 009-002.

Item 132. Embankment

Do not provide Type B embankment material with a Plasticity Index (PI) higher than 35.

Item 162. Sodding for Erosion Control

Strip and stockpile existing soil and grass to a depth of 6" for the areas specified in the plans.

Spread existing stockpiled material to original location after removal of detours.

Item 166. Fertilizer

Fertilize all areas of project to be seeded or sodded.

Item 168. Vegetative Watering

Furnish and install an approved rain gauge at the project site, as directed. Furnishing and installation of the rain gauge will not be paid for directly, but will be considered subsidiary to Item 168.

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Apply vegetative watering for an establishment period of thirteen weeks following application of seed or installation of sod, at a rate of ½" of water depth per week (approximately 13,030 gallons per acre). During the first four weeks after seeding, apply watering twice per week, on non-consecutive days, each at half the weekly application rate. For the remainder of the establishment period, apply vegetative watering once per week during the months of January through June or September through December, at the weekly application rate; apply watering twice per week, on non-consecutive days during the months of July and August, each at one-half the weekly application rate.

Average weekly rainfall rates for the District are as follows:

January – 0.39"	April – 0.86"	July – 0.48"	October – 0.68"
February – 0.46"	May – 1.00"	August – 0.47"	November – 0.46"
March – 0.48"	June – 0.63"	September – 0.74"	December – 0.37"

Item 340. Dense Graded Hot Mix Asphalt (Method)

Use of RAP is allowed only for base and underlayment courses on this project.

RAP aggregate must meet the requirements of Table 1.

Dilution of tack coat is not allowed.

Provide aggregate with a surface aggregate classification value of B for the surface course of the travel lanes.

Provide a PG64-22 asphalt for the base course.

Furnish a CSS-1P for the tack coat on this project.

From Table 5:

The tensile strength is waived for this project.

Use the boil test, Test Method TEX-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

The requirements shown in Table 6 are waived for this project.

Include the approved mix design number on each delivery ticket.

Place mixture when the roadway surface temperature is equal to or higher than the temperatures listed in Table 10 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. The Engineer may allow mixture placement to begin prior to the roadway surface reaching the required temperature requirements

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if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Unless otherwise shown on the plans, place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 10
Minimum Pavement Surface Temperatures

High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	45	50
PG 70	55 ¹	60 ¹
PG 76	60 ¹	60 ¹
PG 76	65 ¹	70 ¹
Asphalt Rubber (A-R)	65 ¹	70 ¹

Note 1: Contractors may pave at temperatures 10°F lower than the values shown in Table 10 when utilizing a paving process or equipment that eliminates thermal segregation. In which cases, the contractor must use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Test Method 244-F to demonstrate to the satisfaction of the engineer that the uncompacted mat has no more than 10°F of thermal segregation.

Item 421. Hydraulic Cement Concrete

The strength testing equipment for concrete will be capable of producing an electronic printout of the test results.

Include the approved mix design number on each delivery ticket.

Item 427. Surface Finishes for Concrete

Provide a one rub finish to the following listed elements: Beam Repairs

Item 502. Barricades, Signs, and Traffic Handling

Maintenance of roadways, not paid as "constructing detours", and designated in the traffic control plan to carry traffic, will be the responsibility of the Contractor and will be paid for by "Contractor Force Account or Agreed Unit Price".

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Permanent signs may be installed when construction in an area is complete and they will not be in conflict with the traffic control plan for the remainder of the job.

Existing signs are to remain as long as they do not interfere with construction and they do not conflict with the traffic control plan.

Any sign not detailed in the plans but called for in the layout shall be as shown in the current "Standard Highway Sign Designs for Texas".

When traffic is obstructed, arrange warning devices in accordance with arrangements indicated in the latest edition of the "Texas Manual on Uniform Traffic Control Devices".

Cover or remove any work zone signs when work or condition referenced is not occurring.

Equip vehicles and equipment with at least one (1) omni-directional flashing amber warning lamp. Mount a warning lamp on the vehicles in such a manner as to allow clear visibility from all directions. Equipment such as trucks, trailers, autos, etc, will be equipped with emergency flashers and the flashers will be used within the work zone. Equipment and vehicles will be approved prior to use. Flashing Arrow Panel Boards will be Type C for this project.

Shadow vehicles equipped with Truck-Mounted Attenuators (TMA's) are required as shown on all Traffic Control Plan (TCP) Standards and are considered incidental to Item 502. Striping will be required on the back panel of truck mounted attenuators, and will be 8 inches of red and white stripes placed on an inverted "V" design. Sheeting will conform to departmental material Specification D-9-8300, Type "C".

Provide letter stating that all truck-mounted attenuators (TMA's) used on this project have been proven to be crashworthy using the criteria in the National Cooperative Highway Research Program (NCHRP) Report 350.

Provide full-time, off-duty, uniformed, certified peace officers as part of traffic control operations. The peace officers must be able to show proof of certification by the Texas Commission on Law Enforcement Officers Standards. The timing and use of the officers shall be incorporated into the traffic control plan and will be paid for by Force Account. Contact Rex Hoskins (940-627-1500) of the Decatur Police Department.

Item 506. Temporary Erosion, Sedimentation, and Environmental Controls

The SW3P for this project shall consist of using the following item as directed:

Temporary sediment control fence

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Remove accumulated sediment and/or replace SW3P controls when the capacity has been reduced by 50% or when the depth of sediment at the control structure exceeds one foot.

Item 4191. Carbon Fiber Reinforced Polymer (CFRP) for Strengthening Concrete Structure Members.

This item will not be paid for directly but will be considered subsidiary to the pertinent bid items.

Item 6834. Portable Changeable Message Signs

All portable changeable message signs and arrow panels are to be provided with a photoelectric device to allow for automatic dimming of operations to approximately 50% of their normal brightness when ambient light drops to approximately five footcandles, and then increase back again for daytime operations.

Two (2) electronic portable changeable message sign unit(s) will be required. Individual or collective use of signs will be required by Engineer when deemed necessary to supplement the traffic control plan.

Each sign shall be programmed in its permanent memory the following 15 messages:

1. Exit Closed Ahead
2. Use Other Routes
3. Right Lane
4. Left Lane
5. Closed Ahead
6. Two Lane
7. Detour Ahead
8. Thru Traffic
9. Prepare To Stop
10. Merging Traffic
11. Expect 15 Minute Delay
12. Max Speed ** MPH
13. Merge Right
14. Merge Left
15. No Exit Next ** Miles

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TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT
ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION JUNE 1, 2004.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 162 SODDING FOR EROSION CONTROL (166)(168)
ITEM 168 VEGETATIVE WATERING
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
ITEM 508 CONSTRUCTING DETOURS
ITEM 788 CONCRETE BEAM REPAIR (426)(427)(429)(441)(442)(780)

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
HEREON WHEREVER IN CONFLICT THEREWITH.

SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--1493)
SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS"
(000---011)
SPECIAL PROVISION TO ITEM 1 (001---011)
SPECIAL PROVISION TO ITEM 2 (002---017)
SPECIAL PROVISION TO ITEM 3 (003---023)
SPECIAL PROVISION TO ITEM 4 (004---013)
SPECIAL PROVISION TO ITEM 5 (005---004)
SPECIAL PROVISION TO ITEM 6 (006---030)
SPECIAL PROVISIONS TO ITEM 7 (007---213)(007---445)
SPECIAL PROVISIONS TO ITEM 9 (009---002)(009---012)(009---015)
SPECIAL PROVISION TO ITEM 166 (166---001)
SPECIAL PROVISION TO ITEM 500 (500---005)
SPECIAL PROVISION TO ITEM 502 (502---033)

SPECIAL SPECIFICATIONS:

ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
CATIONS FOR THIS PROJECT.

SPECIAL SPECIFICATION

4191

Carbon Fiber Reinforced Polymer (CFRP) for Strengthening Concrete Structure Members

- 1. Description.** Furnish and install a carbon fiber reinforced polymer (CFRP) system for strengthening concrete structure members.
- 2. Materials.** Furnish only new materials. Provide unidirectional high-strength carbon fiber fabric, fully saturated with compatible epoxy resin per manufacturer's recommendations, to form a CFRP system. Properties of the carbon fibers in the CFRP must meet or exceed the following requirements:

Table 1
CFRP Carbon Fiber Property Requirements

Property	Specification Requirement
Tensile Strength*	550,000 psi
Tensile Modulus*	33,000,000 psi
Ultimate Elongation*	1.50%

* Verified by ASTM D3039 test procedure

Provide flexible, waterproofing, non-vapor-barrier protective top coating compatible with the CFRP per manufacturer's recommendations to protect the CFRP from ultraviolet radiation and mild abrasion. Match color and texture of protective top coating to adjacent concrete.

Complete CFRP systems, including CFRP and top coating, that are pre-approved under this specification are listed below:

Table 2
Approved CFRP Systems

Product Name	Producer
SikaWrap Hex 117C	Sika Corporation
Tyfo SCH-11UP	Fyfe Corporation, LLC
Wabo Mbrace CF130	Watson Boman Acme Corporation

Substitutions for pre-approved systems that provide equivalent strengthening results are subject to approval by the Engineer.

- 3. Contractor Submittals.** Submit the following documentation, and obtain approval before work commences.
 - A. Contractor Training.** Provide certification from the CFRP manufacturer that the Contractor's project supervisor has completed a formal training program on the CFRP system selected, and provide documentation showing the Contractor has been certified or approved by the supplier of the CFRP system to install its product. Ensure that the

trained project supervisor remains at the work site at all times to instruct the work crew and direct the CFRP field installation work.

- B. Contractor Experience.** Provide documentation to demonstrate a minimum of 3 years experience in CFRP field installation, including successful completion of at least 4 CFRP field installation projects similar in scope and magnitude to the work proposed. Include contact person(s) and phone number(s) for each project. If the experience requirements cannot be met, ensure that a manufacturer's representative is on site before work begins and is available during the work at no additional cost to the Department. The Engineer may request the presence of the manufacturer's representative as needed.
- C. Material Supplier Training/Support Program (not required if pre-approved systems are used).** Provide documentation to show that the material supplier of the proposed carbon fiber reinforcing system has a formal training program technically supporting specialty contractors that includes a certification program. If the manufacturer does not have a formal training or certification program, ensure that a manufacturer's representative is on site before work begins and is available during the work at no additional cost to the Department. The Engineer may request the presence of the manufacturer's representative as needed.
- D. Product Data (not required if pre-approved systems are used).** Submit a schedule of repair materials to be used. Provide manufacturer's product data sheets that include: mechanical, physical, and chemical properties, and material specifications for the proposed primer, putty, resin, saturant, carbon fiber, and protective top coating; and standards, environmental durability, limitations, maintenance instructions, and general recommendations for the complete CFRP system. Provide testing information on the combination of the proposed carbon fiber reinforcement and epoxy when used together as a composite system. Provide manufacturer's Material Safety Data Sheets (MSDS) for all materials to be used on site and certification that the materials conform to local, state, and federal environmental and worker's safety laws and regulations.
- E. Shop Drawings (not required if pre-approved systems are used).** Provide shop drawings, signed and sealed by a Licensed Professional Engineer, including: repair locations; relevant dimensions of the system; details of the number, thickness, and orientation of carbon fiber layers proposed; locations of splices and corresponding lap lengths; and construction procedures specifying the individual steps in the installation process with time schedules each step. The construction procedures must clearly identify the environmental and substrate conditions that may affect the application and curing of the CFRP system. Include signed and sealed by a licensed professional Engineer calculations with the shop drawings indicating that the proposed system provides an equivalent strengthening result as that provided by the pre-approved systems.

4. Construction Methods.

- A. General.** As required, repair concrete substrate in accordance with Item 429, "Structure Concrete Repair." Obtain Engineer's approval of all concrete repairs and restoration prior to surface preparation. Conduct a pre-installation conference with the Engineer,

the contractor's project supervisor, the manufacturer's field representative, and other trades involved to discuss the work required for each application.

- B. Handling of Materials.** Deliver all CFRP components (excluding fabric) in original factory-sealed, unopened packaging clearly marked with the manufacturer's name, product identification (including brand, system identification number, and batch number), and expiration date or shelf life. Store and handle the products in accordance with the manufacturer's instructions. Do not use components that have exceeded their shelf life.
- C. Environmental Conditions.** Examine environmental conditions before and during installation of the CFRP system to ensure conformity with the contract requirements and manufacturer's recommendations. Do not install any CFRP component if the substrate surface is moist or wet, or if ambient or concrete surface temperatures are outside the 50-95° Fahrenheit temperature range, or if rainfall or condensation is anticipated.
- D. Surface Preparation.** Prepare concrete substrate surfaces to promote continuous intimate contact between the CFRP and the concrete by providing a clean, smooth, and flat or convex surface. Grind away all irregularities, unevenness, and sharp protrusions to provide less than 1/32-in. surface profile deviation. Fill all voids or depressions of diameters larger than 1/2 in. or depths greater than 1/8 in. Round or chamfer all inside and outside corners and sharp edges to a minimum radius of 1/2 in. Epoxy-inject all cracks in the concrete surface wider than 1/100 in. in accordance with Item 780, "Epoxy Injection." Remove all laitance, dust, dirt, oil, foreign particles, disintegrated materials, and any other matter that could interfere with the bond of the concrete to the CFRP using abrasive or water-blasting techniques. Allow all patching materials to cure a minimum of 2 days and reach a minimum of 3,000 psi compressive strength prior to installation of any CFRP components.
- E. Installation of CFRP System.** Use either the wet lay-up or the dry lay-up application method. Install the CFRP system in accordance with contract requirements and the manufacturer's recommendations. Obtain approval from Engineer prior to implementing any changes to the manufacturer's recommended CFRP installation procedure.
- F. Testing.** After the initial resin has cured at least 24 hours, perform the following tests: a visual inspection of the entire CFRP surface, an acoustic tap test of any areas suspected to contain air pockets, and at least 2 direct pull-off tests for each member strengthened in accordance with ASTM D4541 to verify the tensile bond between the concrete and the CFRP system. The Engineer will select areas within which to perform the direct pull-off test. At the discretion of the Engineer, perform some or all direct pull-off tests on CFRP test samples prepared at locations of similar substrate near the CFRP installation area. Prepare the test samples using identical application procedures at the same time that the project CFRP is installed. Repair the damaged CFRP and concrete at test areas after testing is completed.
- G. Repair of Defective Work.** Repair all defective work including voids, bubbles, delaminations, and fabric tears to provide a completed CFRP system with the designed

level of quality in accordance with the approved repair plan, the manufacturer's recommendations, and specific Engineer instructions. Obtain approval from the Engineer prior to performing any repairs. Make repairs to the satisfaction of the Engineer.

- 5. Measurement.** This Item will be measured by the square foot of area strengthened.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2, "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

- 6. Payments.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Carbon Fiber Reinforced Polymer Concrete Strengthening." This price is full compensation for all materials, labor, equipment, pull-off testing (including repair of test sites), manufacturer's supervision, and related services necessary to prepare the surface of the concrete, to install the CFRP system as detailed in the plans and specified herein, and to apply the topcoat. If an alternate CFRP system is used, this price includes all engineering, design, testing, technical services, and submittals.

When not shown on the plans as a separate pay item, payment for installing CFRP is subsidiary to the pertinent Items.